

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A system for controlling a V-belt type continuously variable transmission (CVT) for a vehicle with ~~a prime-mover~~ an engine, comprising:

primary and secondary pulleys arranged on input and output sides, the pulleys having V-grooves, the pulleys having primary-pulley and secondary-pulley chambers defined at least by movable flanges, the primary-pulley and secondary-pulley chambers being subjected to primary-pulley and secondary-pulley pressures produced from a line pressure;

a V-belt looped over the primary and secondary pulleys to engage in the V-grooves;

a shift control valve arranged to move in such a manner to vary the primary-pulley pressure and to vary a width of the V-groove of the primary-pulley;

a shift link that mechanically links the movable flange of the primary pulley and the shift control valve;

return springs arranged in the primary-pulley and secondary-pulley chambers, respectively, in such a manner to bring the primary and secondary pulleys into a predetermined shift ratio during tractive cruising of the vehicle;

~~a shift actuator having a first position corresponding to a first target shift ratio, the shift actuator being operated to the first position to change a width of the V-grooves through a differential pressure between the primary pulley and secondary pulley pressures, conforming a shift ratio obtained from a rotational-speed ratio between the primary and secondary pulleys to the first target shift ratio; and~~

a shift actuator mechanically linked with the shift link and arranged to move so as to vary a relationship between position of the shift control valve and position of the movable flange of the primary pulley; and

an electronic control unit (ECU) which controls the shift actuator in such a manner to conform a shift ratio obtained from a rotational-speed ratio between the primary and secondary pulleys to a target shift ratio, the ECU being so programmed as to:

determine if the primary-pulley pressure reaches a predetermined value within a predetermined period after a start of the ~~prime-mover~~ engine; and

~~change the first position of the shift actuator to a second position of the shift actuator corresponding to a second target shift ratio if it is determined that the primary pulley pressure fails to reach the predetermined value, the second target shift ratio being on a high-speed side with respect to a third position of the shift actuator corresponding to a third target shift ratio to be achieved if it is determined that the primary pulley pressure reaches the predetermined value~~

move the shift actuator to a first position corresponding to a first target shift ratio if it is determined that the primary-pulley pressure fails to reach the predetermined value within the predetermined period, the first position being on a high-speed side with respect to a second position to be occupied by the shift actuator when the primary-pulley pressure reaches the predetermined value within the predetermined period, and being close to the predetermined shift ratio during tractive cruising of the vehicle.

2. (Currently Amended) The system as claimed in claim 1, wherein the first ~~second~~ position of the shift actuator is located on the high-speed side with respect to a third ~~fourth~~ position of the shift actuator corresponding to the shift ratio achieved by moving back the shift ratio during a tractive cruising of the vehicle by the secondary-pulley pressure produced at the start of the ~~prime-mover~~ engine after the tractive cruising.

3. (Currently Amended) The system as claimed in claim 1, wherein if it is determined that the primary-pulley pressure reaches the predetermined value before the shift actuator reaches the first ~~second~~ position, the ECU fixes the shift actuator at a fourth ~~fifth~~ position occupied at that time.

4. (Original) The system as claimed in claim 1, wherein the predetermined period of the primary-pulley pressure is changed in accordance with an oil temperature.

5. (Currently Amended) A vehicle, comprising:

~~a prime-mover~~ an engine;

a V-belt type continuously variable transmission (CVT), comprising:

primary and secondary pulleys arranged on input and output sides, the pulleys having V-grooves, the pulleys having primary-pulleys and secondary-pulley chambers defined at least by movable flanges, the primary-pulley and secondary-pulley

chambers being subjected to primary-pulley and secondary-pulley pressures produced from a line pressure;

a V-belt looped over the primary and secondary pulleys to engage in the V-grooves; and

a shift control valve arranged to move in such a manner to vary the primary-pulley pressure and to vary a width of the V-groove of the primary-pulley;

a shift link that mechanically links the movable flange of the primary pulley and the shift control valve;

return springs arranged in the primary-pulley and secondary-pulley chambers, respectively, in such a manner to bring the primary and secondary pulleys into a predetermined shift ratio during tractive cruising of the vehicle;

~~a shift actuator having a first position corresponding to a first target shift ratio, the shift actuator being operated to the first position to change a width of the V-grooves through a differential pressure between the primary-pulley and secondary-pulley pressures, conforming a shift ratio obtained from a rotational-speed ratio between the primary and secondary pulleys to the first target shift ratio; and~~

a shift actuator mechanically linked with the shift link and arranged to move so at to vary a relationship between position of the shift control valve and position of the movable flange of the primary pulley; and

an electronic control unit (ECU) which controls the shift actuator in such a manner to conform a shift ratio obtained from a rotational-speed ratio between the primary and secondary pulleys to a target shift ratio, the ECU being so programmed as to:

determine if a tractive cruising of the vehicle is carried out during a stop of the ~~prime-mover engine~~; and

~~change the first position of the shift actuator to a second position of the shift actuator corresponding to a second target shift ratio if it is determined that the tractive cruising is carried out during the stop of the prime-mover, the second target shift ratio being on a high-speed side with respect to a third position of the shift actuator corresponding to a third target shift ratio to be achieved if it is determined that the tractive cruising fails to be carried out during the stop of the prime-mover~~

move the shift actuator to a first position corresponding to a first target shift ratio if it is determined that the tractive cruising is carried out during the stop of the engine, the first position being on a high-speed side with respect to a second position to be occupied by the shift actuator when the tractive cruising fails to be carried out during the stop of the engine, and being close to the predetermined shift ratio during tractive cruising of the vehicle.

6. (Currently Amended) The vehicle as claim 5, wherein the ~~first second~~ position of the shift actuator is located on the high-speed side with respect to a ~~third fourth~~ position of the shift actuator corresponding to the shift ratio achieved by moving back the shift ratio during the tractive cruising of the vehicle by the secondary-pulley pressure produced at a start of the ~~prime-mover engine~~ after the tractive cruising.

7. (Currently Amended) The vehicle as claimed in claim 5, wherein the ECU determines if the primary-pulley pressure reaches a predetermined value within a predetermined period after a start of the ~~prime-mover engine~~.

8. (Currently Amended) The vehicle as claimed in claim 7, wherein if it is determined that the primary-pulley pressure reaches the predetermined value before the shift actuator reaches the ~~first second~~ position, the ECU fixes the shift actuator at a ~~fourth fifth~~ position occupied at that time.

9. (Currently Amended) The vehicle as claimed in claim 7, wherein if it is determined that the primary-pulley pressure fails to reach the predetermined value, the ECU determines that the tractive cruising of the vehicle is carried out during the stop of the ~~prime mover engine~~.

10. (Original) The vehicle as claimed in claim 7, wherein the predetermined period of the primary-pulley pressure is changed in accordance with an oil temperature.

11. (Currently Amended) A method of controlling a V-belt type continuously variable transmission (CVT) for a vehicle with a ~~prime mover~~ an engine,

the CVT comprising:

primary and secondary pulleys arranged on input and output sides, the pulleys having V-grooves, the pulleys having primary-pulley and secondary-pulley chambers

defined at least by movable flanges, the primary-pulley and secondary-pulley chambers being subjected to primary-pulley and secondary-pulley pressures produced from a line pressure;

a V-belt looped over the primary and secondary pulleys to engage in the V-grooves; ~~and~~

a shift control valve arranged to move in such a manner to vary the primary-pulley pressure and to vary a width of the V-groove of the primary-pulley;

a shift link that mechanically links the movable flange of the primary pulley and the shift control valve;

return springs arranged in the primary-pulley and secondary-pulley chambers, respectively, in such a manner to bring the primary and secondary pulleys into a predetermined shift ratio during tractive cruising of the vehicle; and

~~a shift actuator having a first position corresponding to a first target shift ratio, the shift actuator being operated to the first position to change a width of the V-grooves through a differential pressure between the primary pulley and secondary pulley pressures, conforming a shift ratio obtained from a rotational speed ratio between the primary and secondary pulleys to the first target shift ratio;~~

a shift actuator mechanically linked with the shift link and arranged to move so as to vary a relationship between position of the shift control valve and position of the movable flange of the primary pulley,

the method comprising:

conforming a shift ratio obtained from a rotational-speed ratio between the primary and secondary pulleys to a target shift ratio;

determining if the primary-pulley pressure reaches a predetermined value within a predetermined period after a start of the ~~prime-mover engine~~; and

~~changing the first position of the shift actuator to a second position of the shift actuator corresponding to a second target shift ratio if it is determined that the primary pulley pressure fails to reach the predetermined value, the second target shift ratio being on a high speed side with respect to a third position of the shift actuator corresponding to a third target shift ratio to be achieved if it is determined that the primary pulley pressure reaches the predetermined value~~

moving the shift actuator to a first position corresponding to a first target shift ratio if it is determined that the primary-pulley pressure fails to reach the predetermined value within the predetermined period, the first position being on a high-speed side with respect to a second position to be occupied by the shift actuator when the primary-pulley pressure reaches the predetermined value within the predetermined period, and being close to the predetermined shift ratio during tractive cruising of the vehicle.

12. (Currently Amended) The method as claimed in claim 11, wherein the first ~~second~~ position of the shift actuator is located on the high-speed side with respect to a third ~~fourth~~ position of the shift actuator corresponding to the shift ratio achieved by moving back the shift ratio during a tractive cruising of the vehicle by the secondary-pulley pressure produced at the start of the ~~prime mover engine~~ after the tractive cruising.

13. (Currently Amended) The method as claimed in claim 11, further comprising:
~~fixing~~ if it is determined that the primary-pulley pressure reaches the predetermined value before the shift actuator reaches the first ~~second~~ position, fixing the shift actuator at a fourth ~~fifth~~ position occupied at that time.

14. (Original) The method as claimed in claim 11, wherein the predetermined period of the primary-pulley pressure is changed in accordance with an oil temperature.

15. (New) The system as claimed in claim 1, wherein if it is determined that the primary-pulley pressure reaches the predetermined value before the shift actuator reaches the first position, the ECU fixes the target shift ratio after that time.

16. (New) The vehicle as claimed in claim 7, wherein if it is determined that the primary-pulley pressure reaches the predetermined value before the shift actuator reaches the first position, the ECU fixes the target shift ratio after that time.

17. (New) The method as claimed in claim 11, further comprising:
if it is determined that the primary-pulley pressure reaches the predetermined value before the shift actuator reaches the first position, fixing the target shift ratio after that time.